

INTERFERENCE DIGEST

Interference No. 105,416

Paper No.

Name: Charles J. Arntzen et al.

Serial No.: 09/129,298

Patent No.

Title: Use of mixed duplex oligonucleotides to effect localized genetic changes in plants

Filed: 08/05/98

Interference with Baszczyński et al.

DECISION ON MOTIONS

Administrative Patent Judge, _____ Dated, _____

FINAL DECISION

Board of Patent Appeals and Interferences, _____ Dated, _____

Court, _____ Dated, _____

REMARKS

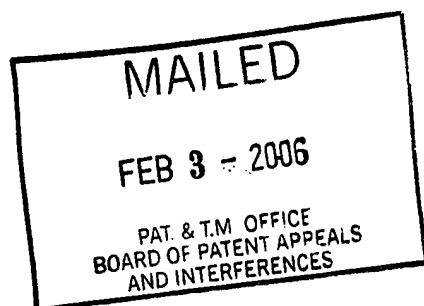
This should be placed in each application or patent involved in interference in addition to the interference letters.



UNITED STATES PATENT AND TRADEMARK OFFICE

DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES
BOX INTERFERENCE, WASHINGTON, D.C. 20231

Filed by: Judge Fred E. McKelvey
Telephone: 571-272-9797
Facsimile: 571-273-0042



Applicants: ARNTZEN
Application No.: 09/129,298
Filed: 08/05/98
For: Use of mixed duplex oligonucleotides to
effect localized genetic changes in plants

The above-identified application or patent has been forwarded to the Board of Patent Appeals and Interferences because it is adjudged to interfere with another application or patent. An interference has been declared. The interference is designated as No. 105,416.

Notice is hereby given the parties of the requirement of the law for filing in the Patent and Trademark Office a copy of any agreement "in connection with or in contemplation of the termination of the interference." 35 U.S.C. § 135(c).

/ss/Fred E. McKelvey
FRED E. McKELVEY
Senior Administrative Patent Judge

Filed by:

Fred E. McKelvey
Senior Administrative Patent Judge
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Filed 03 February 2006

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES
(Senior Administrative Patent Judge McKelvey)

CHRISTOPHER L. **BASZCZYNSKI**, BENJAMIN A. BOWEN,
JOHN H. DUESING, LAURA A. TAGLIANI,
DAVID J. PETERSON and TONG ZHU,

Junior Party
(Patent 6,528,700 B1),

v.

CHARLES J. **ARNTZEN**, PETER B. KIPP
RAMESH KUMAR and GREGORY D. MAY,

Senior Party
(Application 09/129,298).

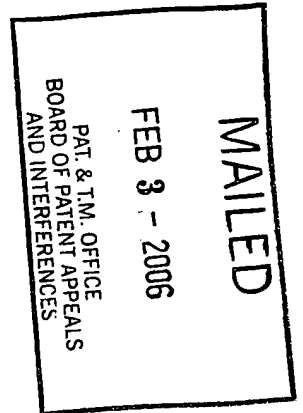
Patent Interference 105,416 (McK)
Technology Center 1600

DECLARATION - 37 CFR § 41.203(b)

Part A. Declaration of interference

1. An interference is declared between the
above-identified parties. 35 U.S.C. § 135(a); 37 CFR
§ 41.203(b).

2. Details of the application, patent, count and
claims designated as corresponding or as not corresponding to the
count appear in Parts E and F of this DECLARATION.



1
2 **Part B. Judge managing the interference**

3 Administrative Patent Judge McKelvey has been designated to
4 manage the interference. 37 CFR § 41.104(a).

5
6 **Part C. Standing order**

7 1. A Trial Division STANDING ORDER (3 January 2006)
8 (Paper 2) accompanies this DECLARATION.

9 2. The STANDING ORDER applies to this interference,
10 including the provisions related to Electronic Filing. See
11 ¶ 105, pages 17-20.

12
13 **Part D. Initial conference call**

14 1. A telephone conference call to discuss the
15 interference is set for **4:00 p.m. (1600 hours Eastern time) on**
16 **15 March 2006** (the Board will initiate the call).

17 2. On or before **noon (1200 hours Eastern time)**
18 **10 March 2006**, each party shall file, and on or before **5:00 p.m.**
19 **(1700 hours Eastern time) 10 March 2006**, each shall serve, a list
20 motions the party intends to file. 37 CFR § 41.120(a); STANDING
21 ORDER ¶ 204, page 58.

22 3. The parties will note that the default procedure
23 is that both lists are to be filed before either is served. By
24 filing before service, one party will not have access to another
25 party's list prior to filing its own list. Nevertheless, the
26 parties may mutually agree to serve lists at any time prior to
27 the due date and time.

1 4. A sample schedule for taking action during the
2 motion phase appears as Form 2 (page 69) in the STANDING ORDER.

3 5. Counsel are encouraged to discuss the schedule
4 prior to the conference call and to agree on dates for taking
5 action.

6 6. A typical motion period lasts approximately eight
7 (8) months.

8 7. Counsel should be prepared to justify any request
9 for a shorter or longer period.

1 Part E. Identification and order of the parties and
2 assignment of exhibit numbers
3
4

Junior Party

5 Named inventors: Christopher L. Baszczynski, Iowa
6 Benjamin A. Bowen, Iowa
7 John H. Duesing, Iowa
8 Laura A. Tagliani, Iowa
9 David J. Peterson, Iowa
10 Tong Zhu, Iowa

11 Patent:¹ U.S. Patent 6,528,700 B1,
12 issued 4 March 2003,
13 based on application 09/193,612,
14 filed 17 November 1998
15

16 Title: Targeted manipulation of genes in plants
17

18 Assignee: Pioneer Hi-Bred International, Inc.
19

20 Accorded Benefit: None²
21

22 ¹ A maintenance fee for the patent is not yet due.

23 ² Baszczynski claims benefit of
24

25 (1) provisional application 60/098,235, filed 28 August 1998 and
26 (2) provisional application 60/065,628, filed 18 November 1997.
27

28 If Baszczynski believes it is entitled to benefit for the purpose of priority
29 of either provisional application, it should list a motion for benefit in its
30 motions list. Both provisional applications are paper files which are
31 currently located at the board. A party may order a copy of the provisional
32 files.

Senior Party

Named Inventors: Charles J. Arntzen, New York
Peter B. Kipp, New York
Ramesh Kumar, New Jersey
Gregory D. May, New York

Application:³ Application 09/129,298,
filed 05 August 1998.

Title: The use of mixed duplex oligonucleotides
to effect localized genetic changes in
plants

Assignee: ValiGen (US), Inc. (previously
Kimeragen, Inc.)

Accorded Benefit: None⁴

³ The application file is an Image File Wrapper (not a paper file).

⁴ Arntzen claims benefit of:

(1) provisional application 60/054,836, filed 05 August 1997.

If Arntzen believes it is entitled to benefit for the purpose of priority of the provisional application, it should list a motion for benefit in its motions list. The provisional application file is a paper file which is currently located at the board. A party may order a copy of the provisional file.

Assignment of exhibit numbers

1. The senior party is assigned exhibit numbers
1001-1999. 37 CFR § 41.154(c) (1).

2. The junior party is assigned exhibit numbers
2001-2999. 37 CFR § 41.154(c) (1).

Initiating settlement discussions

3. The senior party is responsible for initiating
settlement discussions. STANDING ORDER ¶ 126.1 (page 40).

Part F. Count and claims of the parties

Count 1

A method according to claim 2 of Arntzen application
09/129,298,

or

a method according to claim 10 of Baszczyński Patent
6,528,700 B1.

The claims of the parties are:

Baszczyński: 1-32

Arntzen: 1-4, 8, 10-11, 15-20, 22-23 and 27

The claims of the parties which correspond to Count 1 are:

Baszczyński: 1-32 (all of the Baszczyński claims)

Arntzen: 1-4, 8, 10-11, 15-20, 22-23 and 27 (all
of the Arntzen claims)

The claims of the parties which do not correspond to Count 1, and therefore are not involved in the interference, are:

Baszczyński: None

Arntzen: None

1 Claims 1 and 2 of Arntzen

2 1. A method of making a localized mutation in a plant cell
3 to an ALS gene causing the plant cell to be herbicide resistant
4 comprising the steps of:

5 (a) adhering to a particle a recombinagenic
6 oligonucleobase, which contains

7 [1] a first homologous region which has a
8 sequence identical to the sequence of at
9 least 6 base pairs of a first fragment of the
10 ALS gene and

11 [2] a second homologous region which has a
12 sequence identical to the sequence of at
13 least 6 base pairs of a second fragment of
14 the ALS gene, and

15 [3] an intervening region which contains at least
16 1 nucleobase heterologous to the ALS gene,
17 which intervening region connects the first
18 homologous region and the second homologous
19 region;

20 (b) introducing the particle into a cell of a
21 population of plant cells; [and]

22 (c) identifying a cell of the population of plant
23 cells having a mutation located between the first and second
24 fragments of the ALS gene.

25 2. The method of **claim 1**, wherein [A] the recombinagenic
26 oligonucleobase is a mixed duplex oligonucleotide (MDON) and
27 [B] each of the homologous regions contains an RNA segment of
28 at least 6 RNA-type nucleotides.

Claims 2, 3, 5, 6 and 10 of Baszczyński

2. A method of introducing a predetermined alteration in a target sequence of the genome of a plant cell, said method comprising:

[1] introducing a chimeric oligonucleotide into the plant cell,

said oligonucleotide having at least [a] a first block of RNA residues and [2] a second block of RNA residues,

wherein said first and second blocks of RNA residues are homologous to a plant nucleotide sequence and flank a block of DNA residues (DNA block),

said oligonucleotide is capable of folding to form a duplex oligonucleotide; and

wherein said oligonucleotide comprises at least one region of unpaired bases disposed so that said region of contiguous unpaired bases separates the oligonucleotide into a first and second strand; and,

[2] maintaining the chimeric oligonucleotide within the plant cell whereby the alteration is introduced into the target genomic sequence.

3. The method of **claim 2**, wherein said first and second blocks of RNA residues are comprised of a 2'-O or 2'-OMe ribose.

5. The method of **claim 3**, wherein said DNA block comprises at least 5 contiguous nucleotides.

6. The method of **claim 5**, wherein said plant nucleotide sequence is a nucleotide sequence that encodes a herbicide resistance gene.

10. The method of **claim 10**, wherein said herbicide resistance gene is acetohydroxy acid synthetase (AHAS) gene.

1 **Part G. Heading to be used on papers**

2 The following heading must be used on all papers filed in
3 this interference. See STANDING ORDER ¶ 106.1.1 (page 20)

4
5 UNITED STATES PATENT AND TRADEMARK OFFICE
6

7
8 BEFORE THE BOARD OF PATENT APPEALS
9 AND INTERFERENCES
10 (Senior Administrative Patent Judge McKelvey)

11
12
13 CHRISTOPHER L. **BASZCZYNSKI**, BENJAMIN A. BOWEN,
14 JOHN H. DUESING, LAURA A. TAGLIANI,
15 DAVID J. PETERSON and TONG ZHU,

16
17 Junior Party
18 (Patent 6,528,700 B1),

19
20 v.

21
22 CHARLES J. **ARNTZEN**, PETER B. KIPP
23 RAMESH KUMAR and GREGORY D. MAY,

24
25 Senior Party
26 (Application 09/129,298).

27
28
29 Patent Interference 105,416 (McK)
30 Technology Center 1600
31

1 **Part H. Order form for requesting file copies**

2 1. When requesting copies of files, use of STANDING
3 ORDER Form 4 (page 71) will expedite processing of the request.

4 2. Please attach a copy of Part E of this DECLARATION
5 with a hand-drawn circle around the patents and applications for
6 which a copy of a file wrapper is requested.

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⁵ As part of board efforts under the government Paperwork Elimination Act, signatures on papers originating from the board have been phased out in favor of a completely electronic record. Consequently, in this case papers originating at the board will not have signatures. The signature requirements for the parties have not changed. See, e.g., 37 CFR § 10.18 (2005).

1 Enc (there is no Form PTO-850):
2
3 STANDING ORDER (3 January 2006) (Paper 2)
4 Response Under 37 CFR § 1.116 (16 November 2005) (including
5 claims of application 09/129,298
6 Specification of application 09/129,298
7 Power of attorney in file of U.S. Patent 6,528,700 B1
8 U.S. Patent 6,528,700 B1
9 Revocation of power of attorney and new power of attorney
10 (15 October 2003) in file of application 09/129,298
11

1 cc (via overnight delivery):

2
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4 (real party in interest
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17 Attorney for Arntzen
18 (real party in interest
19 ValiGen (US), Inc.):

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24 Gainesville, FL 32606-6669

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